

GAZELLE

Vol 19 no 6 – June 2004



مجموعة دبي للتاريخ الطبيعي

DUBAI NATURAL HISTORY GROUP

PO Box 9234, Dubai, United Arab Emirates

Members' News

Goodbye and Thank You!

Field trip coordinator **David Sneling** will shortly be returning to the UK, with happy memories of his time in the UAE. David had heard about the DNHG before coming to Dubai, from birdwatching contacts in the UK, and sought us out straight away. He has always been willing to lend a hand in various capacities, as a Committee member, trip leader and in connection with our annual end-of-season get togethers, for which we are very grateful. Keep in touch, David!

News From Ras al Kaimah

Barbara Couldrey reports that the annual jelly fish banquet is in full swing on Ras Al Khaimah beaches. Big blue jelly fish (with purple centres) are being washed up and gorged on by hundreds of tiny white crabs.

The following may be common knowledge to Dubai residents, but as a country visitor Barbara was impressed to discover superbly healthy lime trees growing along the central reservation outside the British Consulate, down near the Creek. They are leafy, cool and laden with fruit. What a wonderful scent they must give during their flowering phase!

Summer and Henna

Summer in Dubai provides an unexpected delight – henna blossom. The big tree in the central courtyard at the Majlis Gallery has almost finished blooming, and the little one on the back fence of the Lime Tree Café has failed to make the grade this year, but dotted around town in the suburbs you will see a scraggy tree with clusters of white blossom and an hypnotic scent. It's as good as summer gets!



Rashmi De Roy

World Conservation Day

Rashmi De Roy, who is both a member of the DNHG and of the WWF, arranged a lecture in Bastakia by John Newby on how the Twareg people of Niger live in harmony with their austere surroundings. The talk was illustrated by John's slides taken whilst there on a fifteen year WWF project.

DNHG Membership

September marks the start of the new DNHG membership year. DNHG membership remains a bargain at Dhs. 100 for couples and Dh. 50 for singles. You can join or renew at meetings or by sending us a cheque made out to Lloyds Bank account no. 173746 posted to us at PO Box 9234, Dubai. (Please note we cannot cash cheques made out to the DNHG.)

DNHG membership entitles you to participate in field trips and helps pay for our lecture hall, publication and distribution of our monthly newsletter, the *Gazelle*, additions to our library, incidental expenses of speakers and occasional special projects.

New members who joined in May or June will be enrolled automatically for the coming membership year (Sep 04-Sep 05).

This month's Contributors

The Editor would like to thank the following for their reports and contributions:

Barbara Couldrey
Mohammed Arfan Asif
Valerie Chalmers
Gary Feulner
Drew Gardner



Field Trips etc ...

Field Trips

No DNHG field trips are scheduled for the summer, but we will contact you by e-mail if events arise. For the autumn season, the Committee has successfully adopted a policy of "devolution." In addition to planning a number of specific trips, we have sought and obtained commitments from many past trip leaders (and others whom we know get out a lot) to lead a trip of their choice. The response has been enthusiastic and we will be following up in September. The trips planned include Bastakia walks, shelling, Wadi Bih, Jebel Buahs, Saiq Plateau, a Musandam dhow trip, Subaitha and the Bat Wadi, perhaps even Larry Woods' dump! We also hope to have a few joint trips with the Abu Dhabi or Al-Ain ENHG's.

Stop Press!

Larry Woods' Dump Trip

Thurs 16th Sept, 8.00am

Contact Larry in early September for this memorable day featuring birds, plants and archaeology.



Your Help Is Wanted

The DNHG still needs (1) a librarian and (2) additional field trip coordinator for the coming year.

Librarian: The hardest work is done. Outgoing librarian Deanne White has overseen the move and cataloguing of most of the DNHG library collection, which is now open for use at the Emirates Academy library. This is the most accessible that our library collection has ever been, and we hope that it will prove a convenient reference. However, a small amount of new and miscellaneous material remains to be catalogued, and a modest amount of regular effort is required to ensure that systems are observed and record-keeping is maintained.

Field trip coordinator. All who par-

ticipate in our field trips seem to enjoy them, but it takes a certain amount of effort to make them happen. The job description is to have or solicit ideas, identify and recruit potential trip leaders, and provide "how to" guidance and encouragement. This need not be done in a vacuum – the committee is available to assist, but committee members all have other primary responsibilities. At the moment, the DNHG is relying on a relatively small number of trip leaders. We are worried that a few of these are going to stop making suggestions, because every time they suggest an idea, they are asked to lead!



HAO's 2005 Calendar

The Historical Association of Oman is calling all photographers! Both members and non-HAO members are invited to contribute photographs for the HAO's 2005 calendar.

The theme for the HAO's 2005 calendar will be crafts and crafts people.

We will need either transparencies, photographs of 10" x 8", or high resolution digital. We pay RO20.000 per photograph used. Attach a slip with the following information, and please let us have your entries by Friday 18th June:

- Name:
- Contact tel no:
- Location of photograph:
- Year taken (if known) :
- Model of Camera:

Note: Digitals must be 6 pixels (necessary for quality in off-set printing)



7000 years ago on Marawah Island: some news from ADIAS

The highlight of the recently-completed ADIAS season was further work at the 7000 year-old village on Marawah. This has the best-preserved and most sophisticated Neolithic buildings that have so far been discovered anywhere in Eastern Arabia. The significance of the site, allocated the site code MR-11, was first recognised last year. Among finds this spring were a human skeleton, the earliest inhabitant of Abu Dhabi so far discovered, as well as the most complete Neolithic pottery vessel ever found in the UAE .

The MR11 season lasted from 3rd March to 3rd April. Excavations were directed by Dr Mark Beech (our ADIAS Senior Resident Archaeologist), with other team members including John Martin, a veteran of many ADIAS campaigns, and Richard Cuttler and Derek Moscrop from Birmingham Archaeology Unit. Mohammed Hassan from ADCO provided valuable field assistance while Dr Heiko Kallweit (University of Freiburg, Germany) joined us to study the lithic (stone tool) finds.

The aims of this second season were to undertake detailed mapping and to continue excavations on a building complex in Area A.

The building has proved to be an interesting multi-phase building dating to the Neolithic period. Two radiocarbon dates from the site suggest that the site was in use at least 6500 to 7000 years ago (see *the January 2004 newsletter for details*). After removing many large stone slabs and rubble, representing collapse from the original walls, the shape of part of the structure was defined. Area A is a large building, built in at least three phases. *For the rest of the news about Marawah Island, see: www.adias-uae.com*



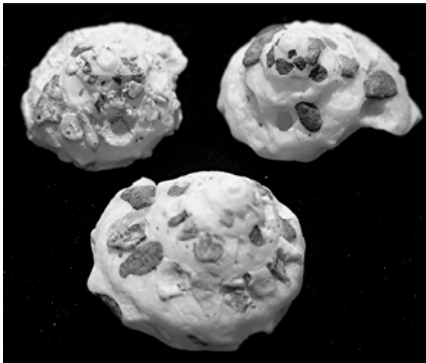
—SHELL—
—REPORT—



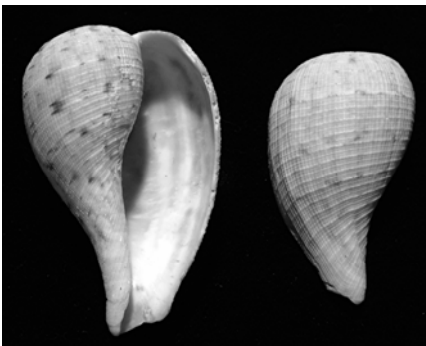
Please send your shell reports
to Sandy Fowler

Mid-Late April 2004

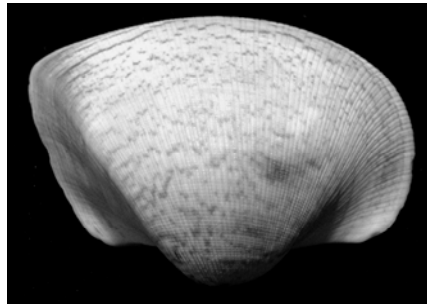
Sheikh's beach, also known as Black Palace beach, lies between Medinat Jumeira and Knowledge Village. It is about all that is left in the area, and is worth a visit as the extensive construction and dredging seem to have dislodged a number of shells. Recently I was surprised to pick up not only ... *Xenophora corrugata*



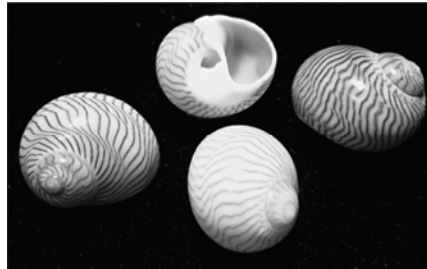
and *Ficus subintermedia*,
but also *Funa tayloriana* (I think!!),



Cucullaea labiata, and ...
Notocholis n. sp., the last three not



recorded in the SE Gulf before.



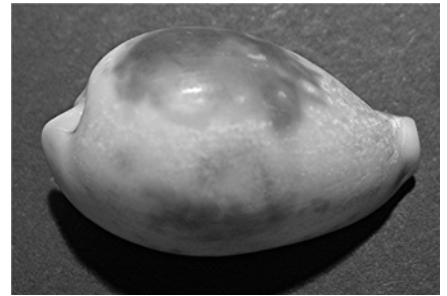
How long this mini-bonanza will last, I don't know. The section nearest the breakwater carries the heaviest number of shells, and the impact of masses of beachgoers seems minimal. Try to keep a sense of humour while shelling this beach.

Rams Beach access is increasingly difficult as the old way round the side of the coastguard station has now been sealed off by an unwelcoming wall which encloses an extensive area well down (?half way down) the beach. You have to track down the side of the wall until able to turn onto the beach. It was very disappointing on my latest visit, apparently becoming a predominantly bivalve beach with less and less gastropods to be seen. No specimens of *Murex scolopax* were found, the first time this has happened in over 15 years.

Supermarket beach, well north of Rams, is known only to those folks who have copies of the guide I wrote. It has now disappeared due to the construction of a new road and parking area overlooking the beach.

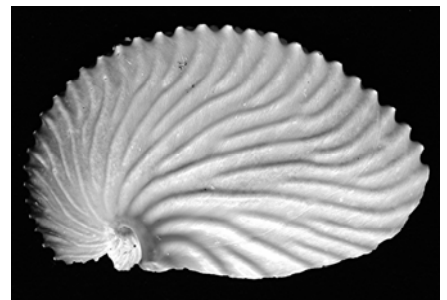
On the East Coast, Khor Fakkan Corniche south end is still very productive with good numbers and variety of shells. On my last visit, I found a specimen of the cowry *C. pulchella pericalles* which has

eluded me for years.
Conus Corner (by the Rul Dhadna



U-turn south of Dibba) is a small, scruffy beach which has been threatened with development for the past few years. I was absolutely delighted to come across a specimen of

Argonauta argo, only the third find, I think, in the UAE in 15 years of shelling. Worth a 30 minute stop



as long as the bullets aren't flying (the north side neighbour occasionally uses his garden as a firing range).

For those with copies of my "Rough Sheller's Guide", be advised that I am in the (slow) process of producing the second edition with improved photos and text. Motivate Publications have expressed an interest in it. Report by Sandy Fowler

A Wonderful Party

Thanks go to Valerie Chalmers

Letters to the Editor

Any news or views you would like published in our monthly newsletter? Feel like tickling things up?



Please send your letter to any of the committee members listed, by fax or e-mail, or direct to the editor.



Field Clips ...

E.mail your reports to pvana@emirates.net.ae, (Arial 10 justified) or deliver them to Anne Millen on floppy disk at monthly meetings.

who organised the End of Season Get-together at the Dubai Country Club. There was a good turnout for the photographic competition and the standard was high. Having a minimum size for prints made for much more even competition, though nothing is even with Mohammed Arfan Asif around!

Our generous sponsors were:

Al Maha Desert Resort and Spa who gave lunch for two plus a trip round Al Maha

The **Fairmont Hotel** who gave spa treatment plus lunch for two

The **Ritz Carlton Hotel** who gave a special afternoon tea for two

The **Dubai Country Club** who gave dinner for two at the Wind-Tower Restaurant

Tony Johnson won the draw prize (based on tickets) for the Dubai Country Club Prize

No one remembers the name of the team that won the quiz but the champions who made it up were Mohammed Arfan Asif, Pradeep and Anindita Radhakrishna, Peter and Jen Robinson and Gary Fuelner and they all won DNHG sweat-shirts for their brilliance. The quiz was compiled by Lena Linton who claims she based it on the last two years' *Gazelles!* She will not get another chance, as the honour goes now to a member of the winning team.

*Photographic Competition
Winners:*



First prize in the competition went to Mohammed Arfan Asif who had the Al Maha prize for his wonderful *Ischnura Damselflies Mating*

Second prize went to Jen Robinson who received the Fairmont Hotel Prize for her *Kissing Camels*



Third prize went to Fran MCaw who had the Ritz Carlton Prize for her almost three-dimensional *Wadi Bani Habib, Oman*



Dubai Natural History Group Recorders

Reptiles - Dr Reza Khan
res 344 8283
off 344 0462
fax (off) 349 9437

Archaeology - Prof. John Fox
jfox@aus.ac.ac

Birds - David Snelling
res 3517187
fax 2950758
050 – 5526308

david.snelling@emirates.com

Seashells - Sandy Fowler
res 344 2243
fax 344 2243
shellerdoc@yahoo.com

Astronomy - Lamjed El-Kefi
res 06-5583 003
off 06-5247 958

pearldiv@emirates.net.ae

Marine Life - Lamjed El-Kefi

Geology - Gary Feulner
res 306 5570
fax 330 3550

Insects – Gary Feulner

Fossils - Valerie Chalmers
res 349 4816,
fax 340 0990
vmc@latifaschool.co.ae

Plants – Valerie Chalmers

Mammals - **Recorder needed**

The recorders are not necessarily scientific experts in their designated fields. In fact, most are not. However, they are interested and knowledgeable amateurs - please contact them if you have any interesting reports or queries.

The intention is that information will be channelled through to the *Gazelle* editor, so new information can be shared with all our readers.

Safa Park Birds

Two new bird species have been recorded breeding at Safa Park this spring. A pair of Shikra (an eastern version of the Sparrowhawk) raised at least two young that are still in residence as of mid-June. More recently a few pairs of Pied Mynah, a species introduced from India, have been seen in proximity to their (surprisingly large) nests.

In fact, Safa Park has been an exciting spot for birdwatchers this year – at least for those who are willing to look beyond the many House Sparrows, Common Mynahs and House Crows. Reports from Safa Park in early June included: Squacco Heron, Nightingale and Thrush Nightingale, Golden Oriole, Red-backed Shrike, Woodchat Shrike and Masked Shrike, and a lone Mandarin Duck (an obvious but attractive escapee). The razing of the reeds within the park has probably finished off the Red Bishop as a breeding exotic, but a few Marsh Warblers nevertheless paid a visit.

My own visit to Safa Park in mid-June called my attention to the increased presence of Collared Doves there, as well as elsewhere around Dubai and perhaps around the UAE generally. I also saw an Indian Roller behave in a very odd manner. I watched it fly to a barren, sandy patch of ground and lie there, wings spread-eagled but head in the air, for almost a minute before it flew off to perch in the crotch of a large tree. Does anyone have any idea what the bird was doing? *Report by Gary Feulner*

Through the lens...

Detailed textual information is fine but nature study is enhanced by quality images. Quality is reflected in the approach and clarity with which the image is presented. What, then, is the difference between a snapshot and a good nature photograph? The latter is

sharp and the subject has been photographed in its natural habitat. Composition is a pre-requisite though: arrange your picture so as to attract, and hold, the greatest possible attention for the longest possible time.



The golden rule is that you do not place the subject dead centre unless for a specific effect. Give space around to show environment and direction of movement. Showing the habitat of the species gives the photograph greater natural history value than compact close up shots unless for anatomical study.



By means of lighting techniques, differential focusing and placement of objects within the picture, a three-dimensional effect can be achieved.

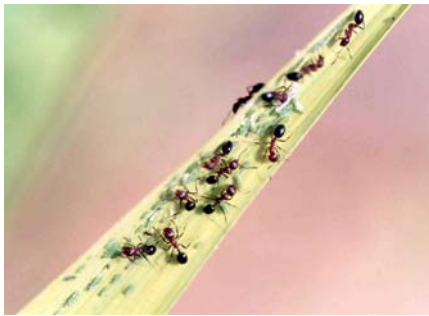


Flat lighting does not bring about texture and details. Therefore having the sun exactly behind you, and shining straight on to the subject, does not achieve a three di-



Field Clips...

mensional perspective on a two dimensional medium like the paper. It just becomes a map! Therefore side-lighting is used to get this effect, where the light falls on the subject at a 45 degree angle. When you have a fill-in light, say from a flash or light reflected from a white card, or clouds, back-lighting can be used - the sun is behind the species being photographed. Pictures with atmosphere and emotion are achieved through this technique.



Secondly, by differential focusing, you can achieve a three-dimensional impression in the picture. This is achieved by isolating the subject with wide apertures and making the background of greens, blues and browns out of focus, forming pleasing pastel hues. This removes the distracting aspects of twigs, leaves or any objects that interfere with concentration on the primary subject matter within the frame. How wide an aperture is a judgement based on the depth of field you wish to achieve. The plane of the subject with its furthest point and closest point should be in focus, and everything else out. Keeping too wide an aperture may render some parts of the subject out-of-focus. Check the in-built preview button for depth of field.



But remember! Creating mood and pictorial effect is fine, but it should

not be at the cost of clear definition or detail of the subject. In nature photography, the natural history information is most important.
Text & Photographs by Arfan Asif

Crab Walking - Count Your Steps

Those who struggled through trigonometry in school will have to admire the otherwise relatively humble fiddler crabs, of which several species can be found on the intertidal mud flats of the UAE coasts, often in very large numbers. Watching them requires patience or binoculars, preferably both, since at the first sign of movement in the area above their flat horizon, up to a radius of 5 metres or more, they flee to the safety of their individual burrows.

At the surface, they feed by sorting fine organic matter from the mud. Many species process the mud itself into tiny pellets, which prevents searching the same raw material twice. Males also normally display intermittently by waving their one greatly enlarged front claw (the "fiddle" that gives them their name) in a rhythmic and characteristic fashion.

In feeding, they wander over the uneven ground, this way and that. The ground is flat overall, but uneven, a crab is reckoned to lose visual contact with its burrow at a distance of more than about six inches. Yet if danger threatened, fiddler crabs make a bee-line, i.e., a straight line, back to their burrow from wherever they happen to be. How do they find their burrows?

Experiments by Cornell University scientist John E. Layne suggest that they rely on an instinctive application of high school mathematics. Says Layne, "They measure how many steps they take, and the direction of those steps. So every time they take a step, they instantaneously recompute the position of the burrow." In spite of their meandering, they always know which direction to run, and how far, to reach their burrow in a

straight line.

Experimenting in Trinidad, Layne maneuvered a "crab treadmill" between crabs and their burrows. The treadmill was essentially a piece of plastic on which the crabs' feet slip, so that each step is shorter than normal. When frightened crabs retreated over the treadmill, they stopped short of home.

Other researchers, Australians Jochen Zell and Jan Hemmi, convincingly demonstrated the same phenomenon in another way. Having hidden a square of sandpaper under the mud, they waited until a crab wandered onto it. Then they gently dragged both sandpaper and crab about ten inches to the right of the crab's burrow. When the repositioned crab was intentionally startled, it retreated instantly – not to its burrow, but to a position ten inches to the right of it.

Another phenomenon reported by these scientists (whose principal research is on crab vision) is that the crab always keeps the same side of its body pointed towards its burrow (at least, on a given foray). This seems a surprising result, and a surprisingly limiting one for the crab. It is, however, one which DNHG members can test this themselves on a visit to the coast. Your own observations on this point will be welcomed. *Report by Gary Feulner* [Excerpted from "Mud's Eye View" by Douglas Fox, in *Natural History*, April 2004]



Part II of Drew on Geckos

It is well worth watching a house gecko for a few minutes to appreciate its fantastic climbing skills. The geckos have no difficulty in ascending vertical walls, walking upside down on the ceiling or even across panes of glass. Detailed study has shown that the gecko toe pads do not just use suction,



	name	tel home	tel office	fax
Chairman	Gary Feulner	306 5570 messages: 306 5300	330 3600	330 3550
Vice Chairman	Valerie Chalmers	349 4816 e.mail: vmc@latifaschool.co.ae	no calls pls	340 0990
Treasurer	Jen Robinson	050-5982494 e.mail: fcek2@emirates.net.ae (attn. P. Robinson)		
Membership Secretary	Lena Linton	344 2591 e.mail: linton@emirates.net.ae		344 2591
Membership Assistant	Anindita Radhakrishna	282 3952 e.mail: anin@emirates.net.ae	050-714 4893	
Speaker Co-ordinator	David Palmer	050-366 2551 email: dpalmer@sharjah.ac.ae	06-505 0221	06-505 0429
Fieldtrip Co-ordinator	Pradeep Radhakrishna	282 3952 e.mail: wgarnet@emirates.net.ae	050-450 8496	
Fieldtrip Co-ordinator Special Projects	Beryl Comar	Put your name here! 344 2243 e.mail: comar@emirates.net.ae		344 2243
Newsletter Editor	Anne Millen	269 2519 e.mail: pvana@emirates.net.ae	no calls pls	269 1654
Publisher	Peter van Amsterdam	269 2519 e.mail: pvana@emirates.net.ae	335 5495	269 1654
Librarian	Deanne White	342 9153 e.mail: dgwhite@emirates.net.ae	344 0824, ext 220	344-1510
Book Sales	Jo & Rachel Raynor	334 6183 e.mail: joray@emirates.net.ae		
Postmaster	Sandi Ellis	050-644 2682 e.mail: peterjon@emirates.net.ae		
Chief Engineer	James Pardoe	394 3821		

like those of some climbing frogs (work in a vacuum). They do not use glue (no glue secretions), or electrostatic forces (work in atmosphere full of charged particles). And it is not friction or use of microscopic irregularities in the surface, as climbing geckos can just as easily walk on super-polished glass or Teflon. Instead, each of the specialised scales (scansors) on the underside of the toes has up to 150,000 microscopic hair-like projections called setae. Each toe may have 10 or 20 of these scales. Each seta is about 1/10th the diameter of a human hair. Each of these setae branches at several levels, giving rise to hundreds to thousands of saucer-shaped end plates called spatulae. A large gecko has billions of these. Considering all the setae on all the toes, the total surface area of all these spatulae is huge. Recent research has shown that the attraction is mainly due to van der Waals forces which are attractive forces at the atomic

level. A team in Berkeley California has been able to measure the attractive force of a single seta using a micro-machined measuring device. It turns out that a single seta could lift an ant, and that setae covering the size of a dirham could lift a man. A gecko can hang from a single finger. This of course begs the question of how a gecko unsticks its foot to take the next step. The answer is that the force depends on the angle of the seta. If the hair is levered up at 30 degrees the hairs easily unstick... and a gecko has highly specialized foot anatomy, with special muscles and blood sinuses that fold each toe onto the surface and peel it off again.

This all has great potential applications for making dry and self cleaning adhesives that would work equally well in the vacuum of space as here. Indeed several teams are working on this and Andrey Geim at Nijmegen and Manchester has produced samples of

gecko adhesive tape which apparently work... though there are difficulties in scaling it up to commercial production. (Andrey Geim was awarded the 2000 IgNobel prize in Physics for his experiments on levitating frogs and sumo wrestlers inside powerful magnets!... and Al Ain ENHG have an ignoble laureate in Peter Barss of McGill University, for his impactful medical report "Injuries Due to Falling Coconuts." [published in The Journal of Trauma, vol. 21, no. 11, 1984, pp. 990-1.]).

A few species even have a further sticky pad on the end of the tail, though this is not found in any of our species.

Thanks to Drew Gardner for more of this fascinating story. It will be continued in the July/August issue.



Dubai Natural History Group Programme

Lectures at Emirates Academy of Hospitality Management, 7.30 for 8.00pm

Sep 19 Environmental Challenges in the UAE – Frederic Launay (Please note *third* Sunday)

Oct 3 The Beetle Species Carabeus: From Linnaeus to the Internet – Prof. Mike Gillett